Comparisons of Job Characteristics

Focus Occupation: Electrical Engineers (17-2071)
Associated Occupation: Engineering Technicians, Except Drafters, All Other (17-3029)

Compare Knowledge
Compare Skills
Compare Abilities
Compare Detailed Work Activities
Compare Tools and Technologies

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge

Similarity of Focus Occupation to Associated Occupation: 91

Focus Occupation: Electrical Engineers (17-2071)
Associated Occupation: Engineering Technicians, Except Drafters, All Other (17-3029)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Engineering and Technology	5.7	17.6	22.4	>>	Current knowledge level is likely more than sufficient
Mathematics	9.2	16.6	18.1	0	Current knowledge level may be sufficient
Mechanical	6.8	16.6	12.9	<<	Extensive education and/or training may be required
Computers and Electronics	8.4	16.2	17.7	0	Current knowledge level may be sufficient
Design	5.2	15.1	21.5	>>	Current knowledge level is likely more than sufficient
Production and Processing	6.0	13.3	8.0	<<	Extensive education and/or training may be required
Physics	4.3	12.9	15.3	>	Current knowledge level is likely sufficient
Telecommunications	3.9	7.4	7.2	0	Current knowledge level may be sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 59

Focus Occupation: Electrical Engineers (17-2071)
Associated Occupation: Engineering Technicians, Except Drafters, All Other (17-3029)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Operation Monitoring	6.6	12.1	9.1	<<	Extensive development of skills in this area may be required
Quality Control Analysis	5.9	11.5	7.9	<<	Extensive development of skills in this area may be required
Mathematics	6.2	10.8	10.4	0	Current skill level may be sufficient
Troubleshooting	4.5	10.6	8.8	<	A higher skill level may be required

Equipment Maintenance	3.5	10.4	5.5	<<	Extensive development of skills in this area may be required
Equipment Selection	3.3	9.4	4.4	<<	Extensive development of skills in this area may be required
Repairing	3.4	9.4	5.3	<<	Extensive development of skills in this area may be required
Technology Design	2.6	7.0	5.1	<<	Extensive development of skills in this area may be required
Installation	1.7	6.2	1.5	<<	Extensive development of skills in this area may be required
Programming	2.2	4.9	2.6	<<	Extensive development of skills in this area may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities

Similarity of Focus Occupation to Associated Occupation: 90

Focus Occupation: Electrical Engineers (17-2071)
Associated Occupation: Engineering Technicians, Except Drafters, All Other (17-3029)

Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Visualization	7.5	12.3	8.1	<<	Extensive improvement in abilities may be required
Information Ordering	9.9	12.0	12.3	0	Current ability level may be sufficient
Mathematical Reasoning	6.3	11.2	10.4	0	Current ability level may be sufficient
Flexibility of Closure	7.8	10.5	8.3	<	Some improvement in abilities may be required
Perceptual Speed	7.4	10.3	7.3	<<	Extensive improvement in abilities may be required
Number Facility	6.3	10.2	10.1	0	Current ability level may be sufficient
Visual Color Discrimination	6.4	9.6	7.5	<	Some improvement in abilities may be required
Memorization	5.6	7.5	6.1	<	Some improvement in abilities may be required

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

There are no common work activities.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus Occupation to Associated Occupation: 79

Focus Occupation: Electrical Engineers (17-2071)
Associated Occupation: Engineering Technicians, Except Drafters, All Other (17-3029)

Tools and Technologies	Exclusivity
Business function specific software	1
Computer printers	2

Computers	1
Content authoring and editing software	1
Development software	4
Electrical measuring and testing equipment	7
Electronic and communication measuring and testing instruments	14
Electronic manufacturing and processing machinery	56
Indicating and recording instruments	2
Industry specific software	1
Integrated circuits	18
Laboratory decanting and distilling and evaporating and extracting equipment and supplies	19
Laboratory electron and solid state physics equipment	29
Laboratory environmental conditioning equipment	24
Laboratory furnaces and accessories	26
Laboratory heating and drying equipment	13
Laboratory implements	27
Length and thickness and distance measuring instruments	2
Light and wave generating and measuring equipment	4
Mechanical instruments	14
Networking software	21
Operating environment software	12
Power conditioning equipment	33
Spectroscopic equipment	10
Temperature and heat measuring instruments	6
Viewing and observing instruments and accessories	4
Weight measuring instruments	7

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.